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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,675	02/25/2002	Noriyuki Suzuki	00862.022532	4687

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EXAMINER

NGUYEN, LAM S

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 11/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/080,675

Applicant(s)

SUZUKI ET AL.

Examiner

LAM S NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-3, 7, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawanabe et al. (EP 0917096 A2).

Kawanabe et al. disclose a printing apparatus (FIG. 10, element 30) for printing on a printing medium using a printhead, comprising:

an interface (FIG. 10, element 104) which is connected to a host (FIG. 10, element 23) and receives information from the host;

a memory for storing characteristic information of the printhead (FIG. 10, element 43 and Abstract);

discriminating means for discriminating whether or not a command sent from the host based on information inputted to the host from any of plurality of input means (FIG. 10: the printer 30 is one input means of plurality of input means such as keyboard 26, pointing device 27, and floppy disk 107 of the host computer) is a command including the characteristic information of the printhead (FIG. 14 and Abstract: a corresponding discriminating means discriminates a command from the host system 23 for obtaining a request of a profile information of the at least one printhead);

confirmation means for confirming whether or not the command including the characteristic information of the printhead discriminated by said discriminating means is valid (Table 2, page 28: a corresponding means does check sum to confirm if the command is valid);

write control means for controlling to write the characteristic information of the printhead into said memory in a case that said confirmation means confirms that the command is valid (Abstract and FIG. 34: a corresponding write control means stores the profile information in a non-volatile memory. Table 2, page 28: if the check sum fails, the command is not valid, a request for resenting command will be made); and

printing control means for controlling the printhead to print in accordance with the characteristic information written into said memory (FIG. 10, element CONTROLLER).

Referring to claim 2: wherein the characteristic information includes type information of the printhead, and said write control means controls to write the characteristic information of the printhead for each type of printhead (page 27, line 40: the printhead identification ID).

Referring to claim 3: wherein the printhead is a printhead detachable from a printing apparatus main body (FIG. 4, elements 300a-b), and is a printhead attached to said printing apparatus after being selected from plural types of printheads by a user (FIG. 15, step S15009: a user selects b for HEAD EXCHANGE).

Referring to claim 7: wherein said memory includes an EEPROM (FIG. 13, element 59).

Referring to claim 8: wherein the command sent from the host is a command outputted from the host which is externally instructed or receives an instruction (FIG. 15, step S1517 or S1509: the host is instructed by user selection).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 4, 9-12, 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawanabe et al. (EP 0917096 A2) in view of Bobry (US 5634730) and DeSha et al. (US 5293319).

Kawanabe et al. disclose the claimed invention as discussed above, also disclose that the host is capable of communicating with a second system (FIG. 1: the computer set) via a network and accesses to the second system via the network on the basis of the individual information of the printhead (FIG. 14, step S1509: when a user selects HEAD EXCHANGE) (**Referring to claim 12**), and wherein said second system has a database in which information is retrievable via the network, and the database holds characteristic information of the printhead corresponding to the individual information of the printhead (FIG. 15, S1515: a corresponding data base storing the head configuration) (**Referring to claim 15**).

Kawanabe et al. do not disclose that the characteristic information of the printhead indicated on the printhead or an accessory of the printhead in a format identifiable by a human that is at least one of a digit and a character string or an electronic device is inputted by a man-machine interactive operation or the electronic device (**Referring to claims 4, 9-11, 16-18, 20**).

However, it is well known in the art that each printhead is identified by manufactures with a string of characters such as a Hewlett-Packard printhead model 51604A as mentioned by

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Bobry (column 13, line 10-12). Also, the identification of a printhead formed in a format identifiable to human (in term of “operator readable”) that is at least one of a digit and a character string (in term of “alpha-numeric code”) such as a barcode that can be read by an optical reader (in term of “machine readable”) as disclosed by DeSha et al. (column5, line 10-20) **(Referring to claims 14, 19).**

Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to indicate the characteristic information of the printhead used in the printing apparatus of Kawanabe et al. in a format including at least one of a digit and a character string as disclosed by Borby and DeSha et al. The motivation of doing so is that all parameters of an item stored in a database can be represented by the string code which is machine readable or human readable for the purpose of verifying data imprinted as taught by DeSha et al. (column 5, line 10-20).

3. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawanabe et al. (EP 0917096 A2) in view of Bobry (US 5634730) and DeSha et al. (US 5293319), as applied to claims 1 and 12, and further in view of Cunnagin et al. (US 5923820).

Kawanabe et al. as modified disclose the claimed invention as discussed above except that wherein the network includes a LAN or Internet.

However, Cunnagin et al. disclose the network including a LAN for transferring the data from the host computer to the printer (column 22, line 65 to column 23, line 2).

Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to include a LAN for transmitting data between the host and other electronic devices as disclosed by Cunnagin et al. into the network of the printing system of

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Kawanabe et al. as modified. The motivation of doing so is that LAN is a network used to transfer data in a high level language format that will require a relatively small number of bytes of data to be transferred to represent the entire data file that will later be printed as taught by Cunnagin et al. (column 22, line 65 to column 23, line 4).

4. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawanabe et al. (EP 0917096 A2) in view of Yagi et al. (US 6447085).

Kawanabe et al. disclose the claimed invention as discussed above except wherein the printhead is an inkjet printhead for printing by discharging ink and wherein the inkjet printhead comprises an electrothermal transducer for generating heat energy to be applied to ink so as to discharge the ink by utilizing heat energy.

However, Yagi et al. disclose the printhead is an inkjet printhead (FIG. 1) for printing by discharging ink and wherein the inkjet printhead comprises an electrothermal transducer (FIG. 1, element 2) for generating heat energy to be given to ink so as to discharge ink by utilizing heat energy.

Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to include an electrothermal transducer into the printhead of Kawanabe et al. for generating heat energy to discharge ink as disclosed by Yagi et al. The advantages of doing so is that high-speed printing is possible, the recording quality is relatively high, and the generated noise level is low as taught by Yagi et al. (column 1, line 15-20).

Response to Arguments

Applicant's arguments with respect to claim 1 have been considered but are not persuasive.

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Regarding to the argument on page 10: The applicants argued that Kawanabe et al. fail to disclose or suggest the confirming whether of not a command including characteristic information of the printhead is valid. However, as discussed above, Kawanabe et al. disclose the above limitation. Therefore, the claimed invention is disclosed by the cited art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAM S NGUYEN whose telephone number is (703)305-3342. The examiner can normally be reached on 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, STEPHEN D. MEIER can be reached on (703)308-4896. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3431 for regular communications and (703)305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

LN

October 28, 2003



HAI PHAM
PRIMARY EXAMINER